

REMARKS

Claims 1-29 and 36-48 are pending. By this Amendment, claims 1, 7-11, 24, 25, 27, 26, 37 and 46-48 are amended. Support for the claims can be found throughout the specification, including the original claims, and the drawings. See, for example, page 16, lines 5 to page 17, line 2. Reconsideration in view of the above amendments and following remarks is respectfully requested.

Applicant appreciates the courtesies extended to Applicant's representative, Rene A. Vazquez, during the June 27, 2005 personal interview. The substance of the personal interview is incorporated in the Remarks set forth below.

The Office Action objects to claim 48 because of an informality. Claim 48 has been amended per the Examiner's suggestion. Accordingly, withdrawal of the objection is respectfully requested.

The Office Action rejects claims 1, 3, 6, 7, 10-12, 25, 27, 28, 36-39, and 42-47 under 35 U.S.C. §102(e) as anticipated by Lea et al. (hereinafter "Lea"), U.S. Patent No. 6,367,941. This rejection is respectfully traversed.

Claims 1, 25, 27 and 46 recite, *inter alia*, that a "parameter of each of the modeled tap structures is determined based on an effect that all previous tap structures, along a propagation direction of the light, have on a propagation of the light." As discussed during the personal interview, Lea does not teach or suggest these features. In fact, the only discussion in Lea regarding the design of the light extraction structures disclosed therein refer to using empirical

(experimental) methods for determining the configuration and arrangement of the light extraction structures. For example, see col. 9, lines 5-8.

In contrast, the present invention utilizes modeling techniques in which the parameters of each tap structure is determined based on an effect that all previous tap structures, along a propagation direction of the light, have on a propagation of the light. Thus, Applicant respectfully submits that Lea fails to anticipate the subject matter of claims 1, 25, 27 and 46.

Claims 3, 6, 10-12, 36, 38 and 39 depend from claim 1, claims 37, 42 and 43 depend from claim 25, claims 28, 44 and 45 depend from claim 27, and claim 47 depends from claim 46. Thus, these claims are also allowable for at least the reasons set forth above, as well as for the additional features they recite. Accordingly, withdrawal of the rejection under 35 U.S.C. § 102(e) is respectfully requested.

The Office Action rejects claims 1, 5, 10-12, 16-19, 25, 27-29, 36-39, and 42-45 under 35 U.S.C. §102(b) as anticipated by Mori, U.S. Patent No. 4,389,085. The rejection is respectfully traversed.

Claims 1, 25, 27 and 46 recite, *inter alia*, that a “parameter of each of the modeled tap structures is determined based on an effect that all previous tap structures, along a propagation direction of the light, have on a propagation of the light.” As discussed during the personal interview, Mori fails to teach or suggest these features. Specifically, Mori discloses the use of “diffusion holes” for transmitting for transmitting focused sun rays to at least one desired point. However, there is no teaching or suggestion of modeling a desired illumination pattern, nor of

determining parameters of modeled tap structures based on an effect that all previous tap structures, along a propagation direction of the light, have on a propagation of the light.

Thus, Applicant respectfully submits that Mori fails to anticipate the subject matter of claims 1, 25, 27 and 46. Claims 5, 10-12, 16-19, 36, 38 and 39 depend from claim 1, and claims 28, 29, 44 and 45 depend from claim 27. Thus, these claims are also allowable for at least the reasons set forth above, as well as for the additional features they recite. Accordingly, withdrawal of the rejection under 35 U.S.C. § 102(b) is respectfully requested.

The Office Action rejects claims 1, 7, 8, 10-14, 17-20, 22, 23, 25-28, 26-39 and 42-48 under 35 U.S.C. §102(b) as anticipated by U.S. Patent No. 5,432,876 to Appeldorn et al. This rejection is respectfully traversed.

Claims 1, 25, 27 and 46 recite, *inter alia*, that a “parameter of each of the modeled tap structures is determined based on an effect that all previous tap structures, along a propagation direction of the light, have on a propagation of the light.” As discussed during the personal interview, Appeldorn fails to teach or suggest these features.

Specifically, Appeldorn discloses an optical fiber with “reflecting surfaces” in a light emitting region, at least one of which has a cross sectional area that is less than that of the fiber. However, Appeldorn fails to teach or suggest modeling a desired illumination pattern, and that parameters of each of the modeled tap structures is determined based on an effect that all previous tap structures, along a propagation direction of the light, have on a propagation of the light. Thus, Applicant respectfully submits that Appeldorn fails to anticipate the subject matter

of claims 1, 25, 27 and 46. Claims 7, 8, 10-14, 17-20, 22, 23, 36, 38 and 39 depend from claim 1, claims 26, 37, 42 and 43 depend from claim 25, claims 28, 44 and 45 depend from claim 27, and claims 47 and 48 depend from claim 46. Thus, these claims are also allowable for at least the reasons set forth above, as well as for the additional features they recite. Accordingly, withdrawal of the rejection under 35 U.S.C. § 102(b) is respectfully requested.

The Office Action rejects claims 1, 12-14, 17, 25, 27, 28, 26-39, and 42-47 under 35 U.S.C. §102(b) as anticipated by U.S. Patent No. 5,461,547 to Cinpke et al. This rejection is respectfully traversed.

Claims 1, 25, 27 and 46 recite, *inter alia*, that a “parameter of each of the modeled tap structures is determined based on an effect that all previous tap structures, along a propagation direction of the light, have on a propagation of the light.” As discussed during the personal interview, Cinpke fails to teach or suggest these features.

Specifically, Cinpke teaches a light guide with facets in a plurality of parallel microgrooves that are disposed to intercept light introduced into the light guide. However, Cinpke fails to teach or suggest modeling desired illumination patterns, where the parameters of each of the modeled tap structures is determined based on the effect that all previous tap structures, along a propagation direction of the light, have on a propagation of the light. Thus, Applicant respectfully submits that Cinpke fails to anticipate the subject matter of claims 1, 25, 27 and 46.

Claims 12-14, 17, 36, 38 and 39 depend from claim 1, claims 37, 42 and 43 depend from claim 25, and claim 47 depends from claim 46. Thus, these claims are also allowable for at least

the reasons set forth above, as well as for the additional features they recite. Accordingly, withdrawal of the rejection under 35 U.S.C. § 102(b) is respectfully requested.

The Office Action rejects claims 1, 3, 4, 6, 8-14, 17, 19, 20, 23, 24, 25, 27, 28 and 36-45 under U.S.C. §102(e) as anticipated by U.S. Patent No. 6,031,958 to McGaffigan (hereinafter "McGaffigan"). This rejection is respectfully traversed.

Claims 1, 24, 25 and 27 recite, *inter alia*, that a "parameter of each of the modeled tap structures is determined based on an effect that all previous tap structures, along a propagation direction of the light, have on a propagation of the light." As discussed during the personal interview, McGaffigan fails to teach or suggest these features.

Specifically, McGaffigan discloses a simulated laser light system that includes a prismatic element having a plurality of prismatic surfaces. However, McGaffigan fails to teach or suggest modeling a desired illumination pattern, and that parameters of each of the modeled tap structures is determined based on an effect that all previous tap structures, along a propagation direction of the light, have on a propagation of the light. Thus, Applicant respectfully submits that McGaffigan fails to anticipate the subject matter of claims 1, 24, 25 and 27.

Claims 3, 4, 6, 8-14, 17, 19, 20, 23, 36, 38 and 39 depend from claim 1, claims 40-41 depend from claim 24, claims 37, 42 and 43 depend from claim 25 and claims 28, 44 and 45 depend from claim 27. Thus, these claims are also allowable for at least the reasons set forth above, as well as for the additional features they recite. Accordingly, withdrawal of the rejection under 35 U.S.C. § 102(e) is respectfully requested.

The Office Action rejects claim 2 under U.S.C. §103(a) as unpatentable over Mori as applied to claim 1. This rejection is respectfully traversed.

Claim 2 depends from claim 1. Thus, for at least the reasons set forth above, Applicant respectfully submits that Mori fails to render obvious the subject matter of claim 2. Accordingly, withdrawal of the rejection under 35 U.S.C. § 103(a) is respectfully requested.

The Office Action rejects claims 4, 8, 9, 15-17, 20-24, 26, 29, 40 and 41 under U.S.C. §103(a) as unpatentable over Lea as applied to claims 1, 12, 25 and 27 and further in view of McGaffigan. This rejection is respectfully traversed.

Claims 4, 8, 9, 15-17 and 20-23 depend from claim 1, claims 40 and 41 depend from claim 24, claim 26 depends from claim 25 and claim 29 depends from claim 27. Thus, for at least the reasons set forth above, Applicant respectfully submits that the combination of Lea and McGaffigan fail to render obvious the subject matter of claims 4, 8, 9, 15-17 and 20-24, 26, 29, 40 and 41. Further, McGaffigan fails to remedy the deficiencies noted above in Lea. Accordingly, withdrawal of the rejection under 35 U.S.C. § 103(a) is respectfully requested.

The Office Action rejects claim 6 under U.S.C. §103(a) as unpatentable over Cinpke as applied to claim 1, and further in view of us 5,359,691 to Tai et al. (hereinafter "Tai"). This rejection is respectfully traversed.

Claim 6 depends from claim 1. Thus, for at least the reasons set forth above, Applicant respectfully submits that the combination of Cinpke and Tai fail to render obvious the subject

matter of claim 6. Further, Tai fails to remedy the deficiencies noted above in Cinpke. Accordingly, withdrawal of the rejection under 35 U.S.C. § 103(a) is respectfully requested.

The Office Action rejects claims 13 and 14 under U.S.C. §103(a) as unpatentable over Lea, as applied to claim 12, and further in view of U.S. Patent No. 5,465,194 to Currie (hereinafter "Currie"). This rejection is respectfully traversed.

Claims 13 and 14 depend from claim 1. Thus, for at least the reasons set forth above, Applicant respectfully submits that the combination of Lea and Currie fail to render obvious the subject matter of claims 13 and 14. Further, Currie fails to remedy the deficiencies noted above in Lea. Accordingly, withdrawal of the rejection under 35 U.S.C. § 103(a) is respectfully requested.

The Office Action rejects claims 15, 16 and 29 under U.S.C. §103(a) as unpatentable Cinpke, as applied to claims 12 and 27, and further in view of U.S. Patent No. 5,528,720 to Winston et al. (hereinafter "Winston"). This rejection is respectfully traversed.

Claims 15 and 16 depend from claim 1 and 29 depends from claim 27. Thus, for at least the reasons set forth above, Applicant respectfully submits that the combination of Cinpke and Winston fail to render obvious the subject matter of claims 15, 16 and 29. Further, Winston fails to remedy the deficiencies noted above in Cinpke. Accordingly, withdrawal of the rejection under 35 U.S.C. § 103(a) is respectfully requested.

The Office Action rejects claim 19 under U.S.C. §103(a) as unpatentable over Lea, as applied to claim 12, and further in view of U.S. Patent No. 4,935,722 to Pollack (hereinafter "Pollack"). This rejection is respectfully traversed.

Claim 19 depends from claim 1. Thus, for at least the reasons set forth above, Applicant respectfully submits that the combination of Lea and Pollack fails to render obvious the subject matter of claim 19. Further, Pollack fails to remedy the deficiencies noted above in Lea. Accordingly, withdrawal of the rejection under 35 U.S.C. § 103(a) is respectfully requested.

The Office Action rejects claim 21 under U.S.C. §103(a) as unpatentable over Appeldorn, as applied to claim 20, and further in view of U.S. Patent No. 3,779,628 to Kapron et al. (hereinafter "Kapron"). This rejection is respectfully traversed.

Claim 21 depends from claim 1. Thus, for at least the reasons set forth above, Applicant respectfully submits that the combination of Appeldorn and Kapron fails to render obvious the subject matter of claim 21. Further, Kapron fails to remedy the deficiencies noted above in Appeldorn. Accordingly, withdrawal of the rejection under 35 U.S.C. § 103(a) is respectfully requested.

The Office Action rejects claim 48 under U.S.C. §103(a) as unpatentable over Lea, as applied to claim 46, and further in view of Appeldorn. This rejection is respectfully traversed.

Claim 48 depends from claim 46. Thus, for at least the reasons set forth above, Applicant respectfully submits that the combination of Lea and Appeldorn fails to render obvious the subject matter of claim 48. Further, Appeldorn fails to remedy the deficiencies

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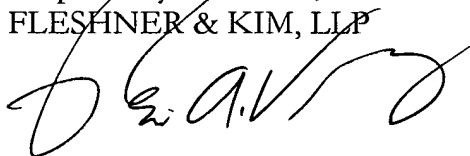
noted above in Lea. Accordingly, withdrawal of the rejection under 35 U.S.C. § 103(a) is respectfully requested.

CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, **René A. Vázquez**, at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. §1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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